



Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137



7 June 2017

Federally Enforceable District Origin Operating Permit Statement of Basis

Owner: Hillerich & Bradsby Co.

Source: Hillerich & Bradsby Co.

Plant Location: 800 West Main Street, Louisville, Kentucky 40202

Date Application Received: 04 March 2016

Public Comment Date: 06 May 2017

District Engineer: Jenny Rhodes

Permit No: O-1027-17-F

Plant ID: 1027 **SIC Code:** 3949

NAICS: 339920

Introduction:

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); unclassifiable for the 2012 standard for particulate matter less than 2.5 microns (PM_{2.5}) and partial non-attainment area for sulfur dioxide (SO₂).

Application Type/Permit Activity:

☒ Initial Issuance

☐ Permit Revision

☐ Administrative

☐ Minor

☐ Significant

☐ Permit Renewal

Compliance Summary:

☐ Compliance certification signed

☐ Source is out of compliance

☐ Compliance schedule included

☒ Source is operating in compliance

I. Source Information

1. **Product Description:** This source manufacturers baseball bats.
2. **Process Description:** The coating operation consists of dip tanks and spray booths. The spray booths apply a water-based paint, solvent based stain, or a 2 part epoxy onto the bats. This company was a minor source until installing four spray paint booths in 2016 making this source potentially major. The source accepted synthetic minor limits in construction permit C-1027-1002-16-F.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent to this facility.

4. **Emission Unit Summary:**

Emission Unit	Equipment Description
U1	Woodworking
U2	Coating
U3	Printing
U4	Boilers
U5	Parts Washers

5. **Fugitive Sources:** The fugitive sources identified by the source are uncontrolled dip tanks and parts washers.

6. **Permit Revisions:**

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	O-1027-17-F	06/07/17	05/06/17	Initial	Entire Permit	Initial Permit Issuance

7. **Construction Permit History:**

Permit No.	Issue Date	Description
448-94-C	6/28/1994	Coating and finishing operation using waterbase materials for wood baseball bats (Application line #5)
449-94-C	6/28/1994	Particulate collection system for sawdust generated from cutting wood billets to length, wood turning to shape, and sanding to finish for wood baseball bats
450-94-C	6/28/1994	Particulate conveyance system for sawdust generated from cutting wood billets to length, wood turning to shape, and sanding to finish of wood baseball bats (Application line #2)
454-94-C	6/28/1994	One golf iron finishing and assembly process including painting, shaft and grip assembly, and cleaning (Application line #9 and #10)
225-06-C	7/31/2006	Two (2) open sump, cold solvent parts washers, make Chicago Power Tools

Permit No.	Issue Date	Description
239-06-C	7/31/2006	One (1) pad printing logo operation (400 bats per hour) with associated parts wash tank, and one (1) silk screen logo printing operation (450 bats per hour) with associated parts wash tank
C-1027-100 2-16-F	4/29/16	Four (4) spray booths and additional dip lines

8. Emission Summary:

Pollutant	District Calculated Actual Emissions (ton/yr) 2008 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0	No
NO _x	0	No
SO ₂	0	No
PM ₁₀	1.25	Yes
VOC	1.20	Yes ¹
Total HAPs	1.15	Yes
Single HAP	1.15	Yes

9. Applicable Requirements:

☐ PSD ☐ 40 CFR 60 ☒ SIP ☐ 40 CFR 63
☐ NSR ☐ 40 CFR 61 ☒ District-Origin ☐ Other

10. Referenced MACT Federal Regulations: The source has no future MACT requirements.

40 CFR 63 Subpart HHHHHH *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* does not apply to this source because the source does not perform paint stripping using methylene chloride, does not perform spray application of coatings to motor vehicles and mobile equipment, and does perform spray application to plastic and/or metal substrate per 40 CFR 63.11170(a).

11. Referenced non-MACT Federal Regulations: There are no federal regulations for this source.

40 CFR 60 Subpart Dc *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* does not apply to this source because the boilers are less than 10 MMBtu/hr.

¹ The 2008 data does not include emissions from the four additional of the four spray booths permitted in C-1027-1002-16-F.

II. Regulatory Analysis

1. **Acid Rain Requirements:** Hillerich & Bradsby Co. is not subject to the Acid Rain Program.
2. **Stratospheric Ozone Protection Requirements:** Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. Hillerich & Bradsby Co. does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.
3. **Prevention of Accidental Releases 112(r):** Hillerich & Bradsby Co. does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.
4. **40 CFR Part 64 Applicability Determination:** Hillerich & Bradsby Co. is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources*.
5. **Basis of Regulation Applicability**

- a. **Plant-wide**

Hillerich & Bradsby is a potential major source for the pollutant PM₁₀, VOCs, Total HAPs, and Single HAP Glycol Ethers. Regulation 2.17 – *Federally Enforceable District Origin Operating Permits* establishes requirements to limit the plant-wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested limits of the criteria pollutant PM₁₀ < 25 ton/yr, and Total HAPs < 12.5 ton/yr and largest single HAP < 5.0 ton/yr, to be a FEDOOP STAR Exempt source as defined by Regulation 5.00, section 1.13.5.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Hillerich & Bradsby Co. took the total plantwide limits of 25 tpy for criteria pollutants 12.5/5.0 tpy for Total HAPs and single HAP to be a FEDOOP STAR Exempt source.

Regulation 2.17, section 5.2, requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation

2.17, section 5.2, the source shall submit an Annual Compliance Report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

b. **Emission Unit U1 – Woodworking**

i. **Equipment:**

Emission Point	Description	Applicable Regulation	Control ID	Installation Date
E1	One (1) particulate conveyance system collecting material from eleven (11) wood lathes for cutting baseball bats, 1 C&C machine, three (3) sanding stations, and one (1) wood burning operation for burning a label onto each bat	7.08	C1	1995

Control ID	Description	Control Efficiency
C1	One (1) particulate collection system	95%

ii. **Standards/Operating Limits**

1) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.

2) **PM/PM₁₀**

Regulation 7.08 established the PM limit of 2.61 lb/hr. (Construction Permit 449-94-C)

c. **Emission Unit U2 – Coating**

i. **Equipment**

Emission Point	Description	Applicable Regulation	Control ID
E2ai	Three (3) Staining Dip Tanks	7.25	NA
E2aai		7.25	NA
E2aiii		7.25	NA
E2bi	Two (2) ½ Dip Lines	7.25	NA
E2bii		7.25	NA
E2ci	Three (3) Full Dip Lines	7.25	NA
E2cii		7.25	NA
E2ciii		7.25	NA

Emission Point	Description	Applicable Regulation	Control ID
E2d	One (1) "Fish Hook" Dip Line	7.25	NA
E2e	One (1) Filler Dip Line	7.25	NA
E3	One (1) Mini Bat Dip Line	7.25	NA
E4a	Four (4) Spray Booths, Model IFPX5, Manufacturer Global Finishing Solutions	7.08 & 7.25	Filters
E4b			Filters
E4c			Filters
E4d			Filters

ii. **Standards/Operating Limits**

1) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%, for processes that commenced construction after September 1, 1976.

2) **PM/PM₁₀**

Table 1 to Regulation 7.08 establishes a PM limit of 2.34 lb/hr for process weight rates less than or equal to 1,000 lb/hr.

3) **VOC**

- (a) Regulation 7.25 establishes a BACT limit of 3.55 tons of VOC during any consecutive 12-month period for E2ci and E2d combined. (Construction Permit 448-94-C)
- (b) The BACT limit of 9.87 tons during any consecutive 12-month period from E4a, E4b, E4c, and E4d combined is based on the BACT received March 25, 2016.
- (c) For the equipment E2ai, E2aii, E2aiii, E2bi, E2bii, E2cii, E2ciii, E2e, E3, E5b, E5c, and E5d; Regulation 7.25 establishes a plant-wide VOC limit of 5 tons per year for all affected facilities, unless Best Available Control Technology (BACT) level of control is utilized to reduce the VOC emissions.

d. **Emission Unit U3 – Printing**i. **Equipment**

Emission Point	Description	Applicable Regulation	Control ID
E5a	One (1) pad printing logo machine with associated parts wash tank (239-06-C)	7.25	NA
E5b	One (1) pad printing logo machine		
E5c	One (1) pad printing logo machine	7.25	NA
E5d	One (1) pad printing logo machine		
E6	One (1) silk screen printing log machine with associated parts wash tank (239-06-C)		

ii. **Standards/Operating Limits****VOC**

- 1) Regulation 7.25 establishes the 5 tons during any consecutive 12-month period limit for E5a and E6 and the requirement to store all VOC containing materials in closed containers when not in use. (Construction Permit 239-06-C)
- 2) For the equipment E2ai, E2aii, E2aiii, E2bi, E2bii, E2cii, E2ciii, E2e, E3, E5b, E5c, and E5d; Regulation 7.25 establishes a plant-wide VOC limit of 5 tons per year for all affected facilities, unless Best Available Control Technology (BACT) level of control is utilized to reduce the VOC emissions.

e. **Emission Unit U4 – Boilers**i. **Equipment**

Emission Point	Description	Applicable Regulation	Control ID
E7	Two (2) natural gas boilers rated at 4.1 MMBtu/hr	7.06	NA
E8			

ii. **Standards/Operating Limits**1) **PM/PM₁₀**

Regulation 7.06, section 4 establishes the PM standard of 0.10 pounds per million BTU actual heat input for sources having a total heat input capacity of 10 million BTU per hour or less.

2) **SO₂**

Regulation 7.06, section 5 establishes the SO₂ standard of

1.0 pound per million BTU actual heat input for sources combusting gaseous fuels having a total heat input capacity of 145 million BTU per hour or less.

f. **Emission Unit U5 – Parts Washer**

i. **Equipment**

Emission Point	Description	Applicable Regulation	Control ID
E9	Two (2) parts washers without secondary reservoirs.	6.18	NA
E10			

ii. **Standards/Operating Limits**

VOC

Regulation 6.18, section 4 establishes equipment, operating, material, and recordkeeping requirements for cold cleaners and open top degreasers.

III. Other Requirements

- 1. Temporary Sources:** The source did not request to operate any temporary facilities.
- 2. Short Term Activities:** The source did not report any short term activities.
- 3. Emissions Trading:** N/A
- 4. Operational Flexibility:** The source did not request any operation flexibility.
- 5. Compliance History:** There have been no past violations for this company.
- 6. Calculation Methodology or Other Approved Method:**

Woodworking (U1): Emission factors of 0.55 ounces PM/PM₁₀/PM_{2.5} bat for woodchips, 0.002 ounces PM/bat for sanding, and 0.01 ounces PM/bat for burning a label onto a bat based on “in house” testing; shall be used to determine actual emissions.

Coating (U2): VOC and HAP emissions shall be determined based on the safety data sheet (SDS) of the coatings/cleaners and usage. PM PM₁₀/PM_{2.5} is to be determined assuming a 65% transfer efficiency for the spray booths, the solids content of the coatings, and usage.

Printing (U3): VOC and HAP emissions shall be determined based on the safety data sheet (SDS) of the coatings/cleaners and usage.

Boilers (U4): Emission factors from AP-42 Chapter 1.4 for Natural Gas Combustion (Table 1.4-1 through Table 1.4-4) shall be used to determine actual emissions.

Parts Washer (U5): VOC and HAP emissions shall be determined based on the safety data sheet (SDS) of the cleaner and usage.